AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A computer color-matching apparatus for paints comprising:

(A) a colorimeter, (B) a micro-brilliance-feeling measuring device, and (C) a computer in which a plurality of paint blends, color data and micro-brilliance-feeling data corresponding to each of the paint blends, and color characteristic data and micro-brilliance-feeling data of a plurality of full-color paints are entered, and in which a color-matching calculation logic using the paint blends and the data operates,

wherein the micro-brilliance-feeling measuring device comprises:

a light irradiation device operable to irradiate light to a paint film surface;

a CCD camera operable to photograph the light-irradiated paint film surface; and

an image analyzer operable to analyze an image photographed by the CCD camera,

wherein the image photographed by the CCD camera is a two-dimensional image which is divided into a plurality partitions,

wherein the micro-brilliance-feeling measuring device measures a brightness of each of the plurality of partitions,

wherein the brightness is a digital gradation showing a shading value of the two-dimensional image photographed by the CCD camera for each partition,

wherein the image analyzer separately and quantitatively evaluates a glitter feeling and a particle feeling of the two-dimensional image photographed by the CCD camera,

wherein the glitter feeling is a perception of an irregular minute brilliance produced by light regularly reflected from a brilliant pigment in the paint film, and

wherein the [[a]] particle feeling is an irregular non-oriented pattern caused by an orientation or an overlap of a brilliant pigment in the paint film containing a brilliant material when observing a sample under a lighting condition in which a brilliance feeling does not easily occur,

wherein a total sum of brightness is obtained by totaling the brightness of each of the plurality of partitions,

wherein an average brightness is obtained by dividing the total sum of brightness by a total number of the plurality of partitions,

wherein a threshold is set at a value which is at least the average brightness,

wherein the glitter feeling is evaluated on the basis of a brightness whose value is at least the threshold, and

wherein the particle feeling is evaluated by a two-dimensional power-spectrum integral value obtained by integrating the power of a low-spatial-frequency component in accordance with a spatial frequency spectrum constituted by two-dimensional-Fourier-transforming the two-dimensional image, and normalizing the power with a DC component, the two-dimensional image photographed by the CCD camera having been divided into the plurality of partitions.

2. (Previously Presented) The computer color-matching apparatus according to claim 1, wherein color numbers corresponding to the plurality of paint blends entered in the computer (C) are entered in the computer.

3. (Previously Presented) The computer color-matching apparatus according to claim 1, wherein the colorimeter (A) is a multiangle colorimeter.

4. (Currently Amended) A computer color-matching method for brilliant paints which comprises executing the following steps (1) to (3):

(1) measuring a paint film of a reference color to which a color of a paint should be adjusted through color-matching by a colorimeter to obtain color data of the reference color;

(2) measuring the paint film of the reference color to which the color of the paint should be adjusted through color-matching by a micro-brilliance-feeling measuring device to obtain microbrilliance-feeling data of the reference color; and

(3) comparing the color data and the micro-brilliance-feeling data of the reference color with color data and micro-brilliance-feeling data corresponding to paint blends previously entered in a computer, indexing the degree of matching of the color and micro-brilliance feeling of the entered paint blends, and selecting a prospective paint blend,

wherein the method is performed by using a computer color-matching apparatus comprising: (A) the colorimeter, (B) the micro-brilliance-feeling measuring device, and (C) the computer in which a plurality of paint blends, color data and micro-brilliance-feeling data

corresponding to each of the paint blends, and color characteristic data and

micro-brilliance-feeling characteristic data of a plurality of full-color paints are entered, and in

which a color-matching calculation logic using the paint blends and the data operates,

wherein the micro-brilliance-feeling measuring device comprises:

a light irradiation device operable to irradiate light to a paint film surface;

a CCD camera operable to photograph the light-irradiated paint film surface; and

an image analyzer operable to analyze an image photographed by the CCD

camera,

wherein the micro-brilliance-feeling device obtains a two-dimensional image of the paint

film surface by the CCD camera, divides the two-dimensional image into a plurality of partitions,

and measures a brightness of each of the plurality of partitions,

wherein the brightness is a digital gradation showing a shading value of the

two-dimensional image photographed by the CCD camera for each partition,

wherein the image analyzer separately and quantitatively evaluates a glitter feeling and a

particle feeling of the two-dimensional image photographed by the CCD camera,

wherein the glitter feeling is a perception of an irregular minute brilliance produced by

light regularly reflected from a brilliant pigment in the paint film, and

wherein the particle feeling is an irregular non-oriented pattern caused by an orientation

or an overlap of a brilliant pigment in the paint film containing a brilliant material when

observing a sample under a lighting condition in which a brilliance feeling does not easily occur,

wherein a total sum of brightness is obtained by totaling the brightness of each of the plurality of partitions,

wherein an average brightness is obtained by dividing the total sum of brightness by a total number of the plurality of partitions,

wherein a threshold is set at a value which is at least the average brightness,

wherein the glitter feeling is evaluated on the basis of a brightness whose value is at least the threshold, and

wherein the particle feeling is evaluated by a two-dimensional power-spectrum integral value obtained by integrating the power of a low-spatial-frequency component in accordance with a spatial frequency spectrum constituted by two-dimensional-Fourier-transforming the two-dimensional image, and normalizing the power with a DC component, the two-dimensional image photographed by the CCD camera having been divided into the plurality of partitions.

5. (Previously Presented) The computer color-matching method according to claim 4, further executing (4) correcting a selected paint blend by a color-matching-calculation logic after the step (3) to obtain a corrected blend closer to a reference color.

6. (Canceled)

7. (Currently Amended) A computer color-matching method ~~of~~ for executing the following steps (1) to (3):

(1) measuring a paint film of a reference color to which a paint color should be adjusted through color-matching by a colorimeter to obtain color data of the reference color;

(2) measuring the paint film of the reference color to which the paint color should be adjusted through color-matching by a micro-brilliance-feeling measuring device to obtain micro-brilliance-feeling data of the reference color; and

(3) selecting color data and micro-brilliance feeling data of at least one paint blend having the same color number as a preset color number of the reference color, and comparing the color data and the micro-brilliance-feeling data of the selected paint blend with the color data and the micro-brilliance-feeling data of the reference color, indexing the degree of matching of the color and micro-brilliance feeling of the selected paint blend, and selecting a prospective paint blend,

wherein the method is performed by using a computer color-matching apparatus comprising: (A) the colorimeter, (B) the micro-brilliance-feeling measuring device, and (C) a computer in which a plurality of color numbers, paint blends corresponding to the color numbers, color data and micro-brilliance-feeling data corresponding to each of the paint blends, and color characteristic data and micro-brilliance-feeling characteristic data of a plurality of full-color paints are entered, and in which a color-matching calculation logic using the paint blends and the data operates,

wherein the micro-brilliance-feeling measuring device comprises:

a light irradiation device operable to irradiate light to a paint film surface;

a CCD camera operable to photograph the light-irradiated paint film surface; and

an image analyzer operable to analyze an image photographed by the CCD camera,

wherein the micro-brilliance-feeling measuring device obtains a two-dimensional image of the paint surface by the CCD camera, divides the two-dimensional image into a plurality of partitions, and measures a brightness of each of the plurality of partitions,

wherein the brightness is a digital gradation showing a shading value of the two-dimensional image photographed by the CCD camera for each partition, and

wherein the image analyzer separately and quantitatively evaluates a glitter feeling and a particle feeling of the two-dimensional image photographed by the CCD camera,

wherein the glitter feeling is a perception of an irregular minute brilliance produced by light regularly reflected from a brilliant pigment in the paint film, and

wherein the particle feeling is an irregular non-oriented pattern caused by an orientation or an overlap of a brilliant pigment in the paint film containing a brilliant material when observing a sample under a lighting condition in which a brilliance feeling does not easily occur,

wherein a total sum of brightness is obtained by totaling the brightness of each of the plurality of partitions,

wherein an average brightness is obtained by dividing the total sum of brightness by a total number of the plurality of partitions,

wherein a threshold is set at a value which is at least the average brightness,

wherein the glitter feeling is evaluated on the basis of a brightness whose value is at least the threshold, and

wherein the particle feeling is evaluated by a two-dimensional power-spectrum integral value obtained by integrating the power of a low-spatial-frequency component in accordance with a spatial frequency spectrum constituted by two-dimensional-Fourier-transforming the two-dimensional image, and normalizing the power with a DC component, the two-dimensional image photographed by the CCD camera having been divided into the plurality of partitions.

8. (Previously Presented) The computer color-matching method according to claim 7, further executing (4) correcting the selected prospective paint blend by a color-matching-calculation logic to obtain a corrected paint blend closer to the reference color.

9. (Canceled)

10. (Previously Presented) The computer color-matching apparatus according to claim 2, wherein the colorimeter (A) is a multiangle colorimeter.

11. (Previously Presented) The computer color-matching method according to claim 5, wherein the prospective paint blend obtained in step (3) or the corrected blend obtained in step (4) is transferred to an electronic balance.

12. (Previously Presented) The computer color-matching method according to claim 8, wherein the prospective paint blend obtained in step (3) or the corrected blend obtained in step (4) is transferred to an electronic balance.

13-22. (Canceled)